

A NOTE ON CANNIBALISM IN THE FROG

LITORIA DAHLII

by Gordon R. Friend *

Litoria dahlui (Boulenger) is a moderate-sized frog (maximum body length about 70mm) which inhabits wetland habitats in the north of Australia from Cape York to the Kimberleys. Little is known of the habits, mating call or breeding biology of this species, yet it is one of the most common frogs observed during the wet season on the black-soil floodplains and adjacent woodland margins of the Alligator Rivers Region of the Northern Territory. The species breeds in the early wet season (December-January), during which time tadpoles, often in large congregations, may be observed on the floodplains or in flooded buffalo wallows on the margins. Adults are well adapted for an aquatic existence, having well-developed webbing on the toes.

Until recently, this species was referred to the Leptodactylid genus *Cyclorana*, but studies by Tyler, Davies and King (1978) showed it to be closely related to the Hylid frog *Litoria raniformis* from south-eastern Australia, and other members of the *Litoria aurea* group (see Tyler and Davies, 1978). Cogger (1979), however, retains the species under *Cyclorana*.

Members of the *L. aurea* group are well known for their cannibalistic habits (e.g. see Barker and Grigg (1977) p.79), and recent observations of this trait in *L. dahlui* may provide behavioural evidence supporting the morphological and genetic evidence of Tyler *et. al.* (1978) that this species should be regarded as a Hylid frog of the *L. aurea* group.

While spotlighting along the wet woodland margins west of the South Alligator River on the 21st February 1980, a loud piercing cry, attributable to a frog, was heard. On investigation, it was found to be the distress call of a sub-adult *L. dahlui* (sv = 33 mm) whose hind leg and lower body was being ingested by a larger individual (sv = 48 mm) of the same species. The distress call was made at irregular intervals with

mouth widely agape, and the back arched. A further two individuals of the species were observed later the same night exhibiting similar behaviour.

The former two individuals were collected in a wet plastic bag, at which stage they separated. Later the frogs were placed in a small aquarium and observed for some time, but they remained relatively inactive. The next morning only the larger frog was present, and subsequent dissection reveal the partly digested body of the other. The skin of the head and upper body, together with the front left leg, had already been digested.

On the evening of 3 May 1980 a similar example of predation by *L. dahlui* was observed, but on this occasion the prey was an individual of *Litoria inermis*. Again the captured frog emitted a distress call while its hind leg was being ingested by the predator. In the future it is hoped to obtain a recording of these distress calls, since they are not well known in many species.

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